REMARKS

Claims 1-42 are pending in the present application, with claims 1, 5 and 8 being the independent claims. In summary of the outstanding Official Action, claims 1-2, 4-5, 7-13, 20-23 and 37-42 stand rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over U.S. Patent No. 6,438,618 B1 (Lortz et al.) in view of U.S. Patent No. 6,185,613 (Lawson et al.). Claims 3, 6, 27 and 35 stand rejected under § 103(a) as allegedly unpatentable over Lortz et al. in view of Lawson et al. further in view of U.S. Patent No. 5,857,190 (Brown). Claims 14-15 and 19 stand rejected under § 103(a) as allegedly unpatentable over Lortz et al. in view of Lawson et al. further in view of U.S. Patent No. 6,363,435 B1 (Fernando) and claims 16-18, 24-26 and 36 stand rejected under § 103(a) as allegedly unpatentable over Lortz et al. in view of Lawson et al. further in view of U.S. Patent No. 6,446,136 B1 (Pohlmann et al.).

Reconsideration of the outstanding rejections to the claims is respectfully requested in view of the following remarks.

Summary of the Invention

The present invention relates generally to a computer system for tracking references to objects and, more particularly, to a system that encapsulates the complexities of tracking objects as they come up and go down. A method and system for tracking the state of an entity *(e. g.,* an object) on behalf of a client *(e.g.,* an application program) is provided. The states of an entity include up and down. The tracking system of the present invention receives a request from a client to track the state of an entity. The tracking system then watches the state of the entity to detect when the entity enters the up state. When the entity enters the up state, the

tracking system performs a behavior (*e.g.*, notification) that is specified by the client to be performed when the entity enters the up state. When the entity is in the up state, the tracking system monitors the state of the entity to detect when the entity enters the down state. When the entity enters the down state, the tracking system performs a behavior (*e.g.*, notification) that is specified by the client to be performed when the entity enters the down state. When the tracking system receives a request from the client for a reference to the entity, the tracking system determines the current state of the entity and either provides a reference to the entity or indicates that a reference is not being provided. Such a reference allows a client to access the behavior of the entity.

Claim 1

The Office Action alleges claim 1 is unpatentable over Lortz et al. in view of Lawson et al. Applicant respectfully submits that these references are improperly combined in the Office Action because the references teach away from their combination. Specifically, Lortz et al. teaches away from the system of Lawson et al. The system described in Lawson et al. is a system for global event notification in a distributed computer environment (Col 9. lines 45-60). However, Lawson et al. teaches away from using a distributed event processing system. Lawson et al. teaches that using a centralized server operating as an "independent process between the control objects and the clients" allows "connections of the control objects and the clients to be made independent of each other" (Col. 6, lines 40-43). Thus, according to Lortz et al., this capability is dependent upon the system of Lortz et al. operating in a non-distributed

environment. Therefore, one of ordinary skill in the art would be led away from combining Lortz et al. and Lawson et al.

Furthermore, the system of Lortz et al. is an event notification system in a component object model system to provide support for event filtering (Col. 6, lines 48-52). Applicant submits, however, that this solves a different problem than that of Lawson et al. of how to communicate events that happen on a remote server to a subscribing local server (Col. 15, lines 55-57). Therefore, this suggests that the references are even less suitable for combination and would thus tend to lead one of ordinary skill in the art away from combining them.

Therefore, as described above, since the combination of Lortz et al. with Lawson et al. is not proper, withdrawal of the rejection of claim 1 as allegedly unpatentable over Lortz et al. in view of Lawson et al. under 35 U.S.C. § 103(a) is earnestly solicited.

Without conceding the propriety of combining Lortz et al. with Lawson et al., Applicant respectfully submits that Lortz et al. does not disclose the aspects of Applicant's invention as alleged in the Office Action. The Office Action submits that Lortz et al. discloses a system for *tracking*. However, the system taught by Lortz et al. is an event *filtering* system (Col 2, lines 38-41). Lortz teaches a system where filters are used to send pre-selected events sent to a client (Col 7, lines 51-54). This service (depicted by reference numeral 30 in Fig. 3 of Lortz et al.), therefore, does not "track" because the verb tracking is an active verb implying awareness and action which does not include just passive forwarding according to a pre-defined filter.

Also, The Office Action submits that Lortz et al. discloses: a system for providing a state change notification of a change in state of the tracked software component. The

reasoning given in the Office Action is that Lortz et al. discloses a system where, upon a channel being changed on a television, an event is forwarded to a channel change event object and then to an in-process object of a client (Col. 8, lines 54-62). Applicant respectfully submits that this does not describe a change in state of a tracked software component, but a forwarding of an event upon which the software will act accordingly. See Col. 8 lines 57-60 wherein it is stated, "If the event indicates a channel change to a channel not listed by the filter string, the channel change event object compares the event to the filter of the next client connection..." Here, the software component is reactive and does a comparison based upon an event, but is not changing its state, nor being tracked itself. Therefore, Lortz et al. does not teach a system for providing a state change notification of a change in state of the tracked software component

The Office Action also submits that Lortz et al. discloses: providing a property notification to the software component when the property of another software component is set. However, the system disclosed in Lortz et al. describes monitoring properties of a home device, not properties of a software component. Lortz et al. states "In monitoring a device, an application must be notified of certain changes in the properties of the device." (Col 3, lines 7-8). Lortz et al. describes a home device as "for example, a television, video cassette recorder (VCR), a lighting system, a security camera, a telephone and a telephone answering machine." (Col. 2, lines 65-67) Although, as described in Lortz et al., these device notifications can be *from* another application (Col 3, line 10), Applicant submits they are not property notifications for properties *of* another application. Therefore, Lortz et al. does not teach providing a property

notification to the software component when the property of another software component is set, but rather property notification of a home device.

Also, according to claim 1, the software component to which the property notification is given is also that one whose state change is tracked. The software component purported by the Office Action to which notification is given monitors and controls devices (Col 3, lines 4-6) as opposed to being tracked itself. Therefore, Lortz et al. does not teach a property notification system for providing a property notification to the software component (whose state change is tracked).

Lawson et al. was cited for reasons related to distributed computing, but also fails to cure the above identified deficiencies of Lortz et al. with respect to Applicant's invention.

"To establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art." MPEP § 2143.03. Since all the limitations are not taught or suggested either by Lortz et al. or Lawson et al., taken alone or in combination with each other or any other reference of record, Applicant respectfully submits claim 1 patently defines over these references. Withdrawal of the rejections of claim 1 under 35 U.S.C. § 103(a) is thus earnestly solicited.

Claims 2-4 and 40

Claims 2-4 and 40 depend directly from claim 1 and are believed to be allowable for the same reasons. Withdrawal of the rejections of claims 2-4 under 35 U.S.C. § 103(a) is thus earnestly solicited.

Claims 5-7 and 41

Claim 5 shares the following common element with claim 1: "a distributed tracking system for tracking when a software component changes state and for providing a state change notification of a change in state of the tracked software component," and with respect to that element, is believed to be allowable for the same reasons as claim 1. Claims 6-7 and 41 depend directly from claim 5 and are believed to be allowable for the same reasons. Withdrawal of the rejections of claims 2-4 under 35 U.S.C. § 103(a) is thus earnestly solicited.

Claims 8-39 and 42

With respect to the language of claim 8 "via a distributed tracking system, tracking when a software component changes state and providing a state change notification of a change in state of the tracked software component," and "providing a property notification to the software component when a property of at least one of the software component and another software component is set," the Office Action cites the same reasons for rejection as in claim 1. Thus, with respect to this claim language, Applicant submits claim 8 is allowable for the same reasons given above by Applicant as for claim 1. Claims 9 -39 and 42 depend from claim 8 and are believed to be allowable for the same reasons. Withdrawal of the rejections of claims 8-39 and 42 under 35 U.S.C. § 103(a) is thus earnestly solicited.

CONCLUSION

Applicant believes that the present Amendment is responsive to each point raised by the Examiner in the Office Action and Applicant submits that Claims 1-42 of the application

are in condition for allowance. Favorable consideration and passage to issue of the application at the Examiner's earliest convenience is earnestly solicited.

Date: September 24, 2004

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